BOBBY JINDAL GOVERNOR



HAROLD LEGGETT, Ph.D. SECRETARY

### State of Louisiana

### DEPARTMENT OF ENVIRONMENTAL QUALITY ENVIRONMENTAL SERVICES

Certified Mail No.

Activity No.: PER20060001 Agency Interest No. 31512

Jeffrey B. Bellelo Plant Manager, SSU Facility Air Products and Chemicals, Inc. 36637 Hwy 30 Geismar, LA 70734

RE: Initial Part 70 Operating Permit, Air Products & Chemicals Inc - Syngas Separation Unit Air Products & Chemicals, Inc., Geismar, Ascension Parish, Louisiana

Dear Mr. Bellelo:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

| Operation of this facility is hereby authorized under the terms and conditions of this permit. T         | TITO |
|--|------|
| authorization shall expire at midnight on theof, 2013, unless a timely and comp                          | lete |
| renewal application has been submitted six months prior to expiration. Terms and conditions of this per  |      |
| shall remain in effect until such time as the permitting authority takes final action on the application | for  |
| permit renewal. The permit number and agency interest number cited above should be referenced in fut     | ture |
| correspondence regarding this facility.  |      |
|  |      |

Done this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2008.

Permit No.: 0180-00071-V0

Cheryl Sonnier Nolan Assistant Secretary

CSN: rjj

Sincerely,

c: EPA Region VI

### PUBLIC NOTICE LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ) AIR PRODUCTS AND CHEMICALS, INC. - SYNGAS SEPARATION UNIT PROPOSED INITIAL PART 70 AIR OPERATING PERMIT

The LDEQ, Office of Environmental Services, is accepting written comments on an initial Part 70 air operating permit for Air Products and Chemicals, Inc., 36637 LA Highway 30, Geismar, LA 70734 for the Syngas Separation Unit. The facility is located at 33637 LA Highway 30, Geismar, Ascension Parish.

The Syngas Separation Unit (SSU) processes raw synthesis gas supplied from the BASF's acetylene production facility. It currently operates under state operating permit no. 0180-00071-02, issued October 30, 2004.

Air Products and Chemicals, Inc. requested the following permit actions:

- The removal of Cold Flare and Warm Flare case emissions from the facility's GCXVII emissions and included as part of the Cold Flare (Source ID 102-97) and Warm Flare (Source ID 103-97) emissions in response to a request by the Department, and
- The addition of pilot gas combustion and flare stream combustion to both flare emission points.

Two operating scenarios, SCN 0001 and SCN 0002, have been included for the Warm Flare. SCN 0001 is for Warm Flare operations during startup and shutdown conditions and SCN 0002 is for flare operations during normal conditions.

The changes requested by the Department and emission reconciliations have resulted in the facility's carbon monoxide emissions exceeding the major source threshold of 100 TPY.

Estimated emissions in tons per year are as follows:

| Pollutant        | Before | After  | Change  |
|------------------|--------|--------|---------|
| PM <sub>10</sub> | 4.00   | 4.01   | + 0.01  |
| SO <sub>2</sub>  | 0.01   | 0.01   | _       |
| NO <sub>X</sub>  | 1.60   | 2.85   | + 1.25  |
| СО               | 83.50  | 102.91 | + 19.41 |
| VOC *            | 7.61   | 7.79   | + 0.18  |

A technical review of the working draft of the proposed permit was submitted to the facility representative and the LDEQ Surveillance Division. Any remarks received during the technical review will be addressed in the "Worksheet for Technical Review of Working Draft of Proposed Permit". All remarks received by LDEQ are included in the record that is available for public review.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. Written comments and/or written requests must be received form\_7118\_r01

by 12:30 p.m., Thursday, February 12, 2009. Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The proposed Part 70 Air Operating Permit and Statement of Basis are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5<sup>th</sup> Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at <a href="https://www.deq.louisiana.gov">www.deq.louisiana.gov</a>.

Additional copies may be reviewed at the Ascension Parish Library-Gonzales Branch, 708 South Irma Blvd., Gonzales, LA 70737 and East Iberville Branch Library, 5715 Monticello Street, St. Gabriel, LA 70776.

Inquiries or requests for additional information regarding this permit action should be directed to Rusty J. Jack, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-0513.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at <a href="mailto:deqmaillistrequest@la.gov">deqmailtistrequest@la.gov</a> or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the proposed permit and statement of basis can be viewed at the LDEQ permits public notice webpage at <a href="www.deq.louisiana.gov/apps/pubNotice/default.asp">www.deq.louisiana.gov/apps/pubNotice/default.asp</a> and general information related to the public participation in permitting activities can be viewed at <a href="www.deq.louisiana.gov/portal/tabid/2198/Default.aspx">www.deq.louisiana.gov/portal/tabid/2198/Default.aspx</a>.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.doa.louisiana.gov/oes/listservpage/ldeq\_pn\_listserv.htm.

All correspondence should specify AI Number 31512, Permit Number 0180-00071-V0, and Activity Number PER20060001.

Scheduled Publication Date: January 9, 2009

Air Products & Chemicals Inc - Syngas Separation Unit Agency Interest No.: 31512 Air Products & Chemicals Inc Geismar, Ascension Parish, Louisiana

### I. Background

Air Products & Chemicals, Inc. owns and operates the Syngas Separation Unit (SSU) in Geismar, LA (also referred to as the Geismar 2 location). The Unit currently operates under Permit No. 0180-00071-02, issued October 30, 2004.

This is the initial Part 70 operating permit for the facility.

### II. Origin

A permit application and Emission Inventory Questionnaire were submitted by Air Products & Chemicals, Inc. on October 12, 2007 requesting a Part 70 operating permit. Additional information dated October 18, 2007 was also received.

### III. Description

The Syngas Separation Unit processes raw synthesis gas supplied from BASF's acetylene production facility. The raw feed gas is rich in hydrogen and carbon monoxide with minor amounts of carbon dioxide, methane, oxygen, nitrogen, argon, and other gases. The SSU separates and purifies the feed stream into its primary constituents of hydrogen and carbon monoxide. The facility also produces a 1:1 H<sub>2</sub>:CO syngas mixture.

The Unit produces hydrogen and carbon monoxide by separation and purification. No combustion units are involved in this process. The primary sources of atmospheric emissions from the facility are fugitive emissions, a CO<sub>2</sub> stripper column vent, and typical combustion emissions from a smokeless industrial warm flare and a cold flare.

The facility can supply carbon monoxide and syngas to BASF and Shell Chemical Company, and hydrogen to customers in the southern Louisiana area via an existing Air Products-owned pipeline.

The Department requested that the Cold Flare and Warm Flare case emissions be removed from the facility's GCXVII emissions and included as part of the Cold Flare (Source ID 102-97) and Warm Flare (Source ID 103-97) emissions. The Department also requested that pilot gas combustion and flare stream combustion be added to both flare emission points. The Cold Flare is used solely to control startup and shutdown activities at the facility, and all emissions associated with this source are now included in existing Source ID 102-97. The Warm Flare is used to control startup and shutdown emissions and for control of emissions during normal operations. Two operating scenarios, SCN 0001 and SCN 0002, have been

### Air Products & Chemicals Inc - Syngas Separation Unit Agency Interest No.: 31512 Air Products & Chemicals Inc Geismar, Ascension Parish, Louisiana

included for the Warm Flare. SCN 0001 is for Warn Flare operation during startup and shutdown conditions and SCN 0002 is for flare operation during normal conditions.

The changes requested by the Department and emission reconciliations have resulted in the facility's carbon monoxide emissions exceeding the major source threshold of 100 TPY.

Estimated emissions in tons per year are as follows:

| Pollutant        | Before | After  | Change  |
|------------------|--------|--------|---------|
| PM <sub>10</sub> | 4.00   | 4.01   | + 0.01  |
| SO <sub>2</sub>  | 0.01   | 0.01   | -       |
| NO <sub>X</sub>  | 1.60   | 2.85   | + 1.25  |
| СО               | 83.50  | 102.91 | + 19.41 |
| VOC *            | 7.61   | . 7.79 | + 0.18  |

| LAC 33:III Chapter 51 | Toxic Air Pollutants (T | APs): |        |
|-----------------------|-------------------------|-------|--------|
| Pollutant             | Before                  | After | Change |
| Methanol              | 6.54                    | 6.72  | + 0.18 |
| Sulfuric Acid         | 0.00                    | <0.01 | <0.01  |

### IV. Type of Review

This permit was reviewed for compliance with 40 CFR 70 and the Louisiana Air Quality Regulations. Prevention of Significant Deterioration (PSD), New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) do not apply.

This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

The facility may have future applicability to proposed area source NESHAP, Subpart VVVVV, after the rule is promulgated.

Air Products & Chemicals Inc - Syngas Separation Unit Agency Interest No.: 31512 Air Products & Chemicals Inc Geismar, Ascension Parish, Louisiana

### V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

### VI. Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on <date>, 200X; and in the <local paper>, <local town>, on <date>, 200X. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on <date>. The draft permit was also submitted to US EPA Region VI on <date>. All comments will be considered prior to the final permit decision.

### VII. Effects on Ambient Air

Emissions associated with the proposed facility were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

### VIII. General Condition XVII Activities

|                                   |             |                  | Emissi          | on Rates | - tons |       |
|-----------------------------------|-------------|------------------|-----------------|----------|--------|-------|
| Work Activity                     | Schedule    | PM <sub>10</sub> | SO <sub>2</sub> | $NO_X$   | CO     | VOC   |
| CO Pipeline Venting to Atmosphere | 6 events/yr |                  |                 |          | 0.67   | <0.01 |

Air Products & Chemicals Inc - Syngas Separation Unit
Agency Interest No.: 31512
Air Products & Chemicals Inc
Geismar, Ascension Parish, Louisiana

### IX. Insignificant Activities

| Description  | Citation               |
|--|------------------------|
| Monoethanolamine Storage Tank (5,640 gal)                | LAC 33:III.501.B.5.A.3 |
| CO Tube Trailers   | LAC 33:III.501.B.5.D   |
| Rental Diesel Generator (230 kW)*                        | LAC 33:III.501.B.5.D   |
| 3-Diesel Rental Air Compressors (2-185 cfm, 1-1500 cfm)* | LAC 33:III.501.B.5.D   |

\* NOTE: Exemptions based on LAC 33:III.501.B.5.D for the diesel generator and three diesel rental air compressors are granted on the basis that the rental equipment is not subject to the New Source Performance Standard, 40 CFR 60 Subpart JJJJ. In accordance with 40 CFR 1068.31(e), a non-road engine ceases to be a non-road engine and becomes a stationary engine if it is used or will be used at the facility for 12 months or longer.

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

### Air Products & Chemicals Inc - Syngas Separation Unit Agency Interest No.: 31512 Geismar, Ascension Parish, Louisiana Air Products & Chemicals Inc

| X. Tab   | X. Table 1. Applicable Louisiana and Federal Air Qua                        | Quality Requirements | nbə  | iren       | nent     |                    | 1     |          |      |    |             |     |               |    | ļ                 |            |    |    |      |    |                  |
|----------|---|----------------------|------|------------|----------|--------------------|-------|----------|------|----|-------------|-----|---------------|----|-------------------|------------|----|----|------|----|------------------|
|          |   |                      |      |            | Γ'       | LAC 33.III.Chapter | 3:111 | Cha      | pter |    |             |     |               | 40 | 40 CFR 60<br>NSPS | د وہ<br>S  | 40 | CF | R 61 | 40 | 40 CFR 61 40 CFR |
| ID No.   | ID No. Description  | <b>▼</b> S           | 60\$ | 6          | 13<br>11 | SI                 | 5103  | 2107     | 2115 | 77 | <b>*</b> 15 | 9\$ | *6S           | ¥  | KP                | ΛΛ<br>IIII | ¥  | M  | Λ    | 89 | 78               |
| UNF 01   | Entire Facility - SSU Syngas Separation Unit                                |                      |      | _          |          |                    |       |          | 3    | 3  |             | 1   | 1             |    |                   |            |    | 3  |      | 1  | 1                |
| EQT 04   | EQT 04 107-97 CO <sub>2</sub> Stripper Column Vent                          |                      |      |            |          |                    |       |          | 3    |    |             |     |               |    |                   |            |    |    |      |    |                  |
| EQT 05   | EQT 05 102-97 Methane-Wash Cold Box "Cold Flare"                            |                      |      |            |          |                    |       |          |      |    |             |     |               |    |                   |            |    |    |      |    |                  |
| EQT 06   | EQT 06 103-97 Industrial Warm Flare   |                      |      |            | 1   1    |                    |       |          |      |    |             |     |               |    |                   |            |    |    |      |    |                  |
| EQT 07   | EQT 07 104-97 Cooling Tower (3-cell fiberglass)                             |                      |      |            |          |                    |       |          |      |    |             |     |               |    |                   |            |    |    |      |    |                  |
| EQT 08   | EQT 08 105-97 H <sub>2</sub> SO <sub>4</sub> Storage Tank for Cooling Tower |                      |      | <u>-</u> - |          |                    |       |          |      |    |             |     |               |    |                   |            |    |    |      |    |                  |
| FUG 01   | FUG 01 Fugitive Air Emissions   |                      |      |            |          |                    |       | <u>-</u> |      |    |             |     | <del></del> - |    |                   |            |    |    |      |    |                  |
| * The re | The regulations indicated above are State Only regulations                  | ns.                  |      |            |          |                    |       |          |      |    |             |     |               |    |                   |            |    |    |      |    |                  |

All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Air Products & Chemicals Inc - Syngas Separation Unit Agency Interest No.: 31512 Air Products & Chemicals Inc Geismar, Ascension Parish, Louisiana

| KEY T    | KEY TO MATRIX   |
|----------|---|
|          | The regulations have applicable requirements that apply to this particular emission source.   |
| -        | The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but          |
|          | may may morning, recommedate, or reporting requirements   |
|          | The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these        |
| 7        | requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have     |
|          | been in place. If the specific criteria changes the source will have to comply at a future date.  |
| ,<br>,   | The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular |
| <b>n</b> | emission source.  |
| Blank    | Blank The regulations clearly do not apply to this type of emission source.   |
|          |   |

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
  - 1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];

- 2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
- 3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and
- 4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]
- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.

  [Reference 40 CFR 70.6(a)(3)(ii)(B)]
- J. Records of required monitoring shall include the following:
  - 1. the date, place as defined in the permit, and time of sampling or measurements;
  - 2. the date(s) analyses were performed;
  - 3. the company or entity that performed the analyses;
  - 4. the analytical techniques or methods used;
  - 5. the results of such analyses; and
  - 6. the operating conditions as existing at the time of sampling or measurement. [Reference 40 CFR 70.6(a)(3)(ii)(A)]
- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]
- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

# LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

### Air Products & Chemicals Inc - Syngas Separation Unit Agency Interest No.: 31512 Air Products & Chemicals Inc Geismar, Ascension Parish, Louisiana

| XI. Table 2.  | XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source          |  |
|---------------|---|--|
| ID No:        | Requirement   | Notes  |
|               | NSPS Subpart M – National Emission Standards for Asbestos<br>[40 CFR 61]                | DOES NOT APPLY. There is no asbestos present at the facility. [40 CFR 61.144 (a)]  |
| UNF 01<br>SSU | Control of Emissions of Nitrogen Oxides (NO <sub>x</sub> )<br>[LAC 33: III. Chapter 22] | DOES NOT APPLY. The facility does not have one or more affected point sources that collectively emit or have the potential to emit 25 TPY of NO <sub>x</sub> . [LAC 33:III.2201.B] |
| EQT 04        | Waste Gas Disposal  | DOES NOT APPLY. The facility does not emit 25  |
| 101-97        | [LAC 33:III.2115]   | TPY or more of VOC.  |

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]
- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
  - 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
  - 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
  - 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;

- 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
- 5. changes in emissions would not qualify as a significant modification; and
- 6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]
- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
  - 1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
  - 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
  - 3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
    - a. Report by June 30 to cover January through March
    - b. Report by September 30 to cover April through June
    - c. Report by December 31 to cover July through September
    - d. Report by March 31 to cover October through December
  - 4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]

- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]
- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - 1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
  - 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
  - 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
  - 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
  - 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
  - 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight scaled refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]

V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection

and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated October 12, 2007 along with supplemental information dated October 18, 2007.
- IV. This permit shall become invalid, for the sources not constructed, if:
  - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
  - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.

V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.

- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.
- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
  - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
  - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

- C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
  - 1. Report by June 30 to cover January through March
  - 2. Report by September 30 to cover April through June
  - 3. Report by December 31 to cover July through September
  - 4. Report by March 31 to cover October through December
- D. Each report submitted in accordance with this condition shall contain the following information:
  - 1. Description of noncomplying emission(s);
  - 2. Cause of noncompliance;
  - 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
  - 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
  - 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
  - A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
  - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
  - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
  - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.

- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.
- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services in accordance with LAC 33:I.Chapter 19.Facility Name and Ownership/Operator Changes Process.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
  - 1. Generally be less than 5 TPY
  - 2. Be less than the minimum emission rate (MER)
  - 3. Be scheduled daily, weekly, monthly, etc., or
  - 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:1.3901.

XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division La. Dept. of Environmental Quality Post Office Box 4302 Baton Rouge, Louisiana 70821-4302

XIX. For Part 70 sources, certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

### General Information

## Al ID: 31512 Air Products & Chemicals Inc - Syngas Separation Unit Activity Number: PER20060001

Air - Title V Regular Permit Initial Permit Number: 0180-00071-V0

| Also Known As:     | ō            | Name   | User Group                   | Start Date |
|--------------------|--------------|--|------------------------------|------------|
|                    | 0180-00071   | Syngas Separation Unit                                   | CDS Number                   | 04-01-1998 |
|                    | LAR000030247 | Air Products & Chemicals Inc - #2 Syngas Separation Unit | Hazardous Waste Notification | 06-04-1998 |
|                    | LA0105546    | LPDES#   | LPDES Permit #               | 05-22-2003 |
|                    | LAR05N948    | LPDES#   | LPDES Permit #               | 09-18-2009 |
|                    |              | Air Products & Chernicals Inc - #2 Syngas Separator Unit | Multimedia                   | 04-01-1998 |
| Physical Location: | 36637 Hwy 30 |  | Main Phone:                  | 2256775665 |

(portion of) Geismar, LA 70734 36637 Hwy 30 Geismar, LA 70734 Mailing Address:

30º 12'36" latitude, 90º 59'20" longitude, Coordinate Method: Lat.\Long. - DMS, Coordinate Datum: NAD83

Location of Front Gate:

Accident Prevention Billing Party for Accident Prevention Contact for Accident Prevention Contact for Haz. Waste Billing Party for Haz. Waste Billing Party for Responsible Official for Air Permit Contact For Relationship Relationship Operates 6104814911 (WP) 2256775682 (WP) 2256775633 (WF) 2256775638 (WP) 2256775638 (WP) 2256775633 (WF) 2256775682 (WP) Phone (Type) Phone (Type) 7201 Hamilton Blvd Allentown, PA 18195 36637 Hwy 30 Geismar, LA 70734 Mailing Address Address Air Products & Chemicals Inc Jeffrey Bellelo David Albarez David Albarez Jeffrey Bellelo David Albarez David Albarez Harold Allison Name Name Related Organizations: Related People:

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-0775 or email your changes to facupdate@la.gov.

Air Billing Party for

Owns

6104814911 (WP)

7201 Hamilton Blvd Allentown, PA 18195

36637 Hwy 30 Geismar, LA 707343524

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### INVENTORIES

# Al ID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit Activity Number: PER20060001 Permit Number: 0180-00071-V0 Air - Title V Regular Permit Initial

Subject Item Inventory:

| 0          | Description  | Tank Volume  | Max. Operating Rate       | Normal Operating Rate        | Contents | Operating Time   |
|------------|--|--------------|---------------------------|------------------------------|----------|------------------|
| Syngas Sel | Syngas Separation Unit                                 |              |                           |                              |          |                  |
| EQT 0004   | EQT 0004 101-97 - CO2 Stripper Column Vent             |              | 526 MM ft^3/yr            | 526 MM ft^3/yr               |          | 8760 hr/yr       |
| EQT 0005   | EQT 0005 102-97 - Methane-Wash Cold Box "Cold" Flare   |              | 3 MM ft <sup>A</sup> 3/yr | 3 MM ft^3/yr                 |          | 8760 hr/yr       |
| EQT 0006   | EQT 0006 103-97 - Industrial Warm Flare                |              | 1319 MM ft^3/yr           | 1319 MM ft <sup>A</sup> 3/yr |          | 8760 hr/yr       |
| EQT 0007   | EQT 0007 104-97 - Cooling Tower (3-cell fiberglass)    |              |                           |                              |          | 8760 hr/yr       |
| EQT 0008   | EQT 0008 105-97 - H2SO4 Storage Tank for Cooling Tower | 1500 gallons |                           |                              |          | 8760 hr/yr       |
| FUG 0001   | :UG 0001 106-97 - Fugilive Air Emissions               |              |                           |                              |          | (None Specified) |

Stack Information:

| ID Description                                       | Velocity<br>(fl/sec) | Flow Rate (cubic f/min-actual) | Diameter<br>(feet) | Discharge Area<br>(square feet) | . Height<br>(feet) | Temperature<br>(oF) |
|--|----------------------|--------------------------------|--------------------|---------------------------------|--------------------|---------------------|
| Syngas Separation Unit                               |                      | ,                              |                    |                                 |                    |                     |
| EQT 0004 101-97 - CO2 Stripper Column Vent           | 85                   | 1000                           | κi                 |                                 | 106                | 100                 |
| EQT 0005 102-97 - Methane-Wash Cold Box "Cold" Flare | 100                  | 18850                          | 2                  |                                 | 164                | 2000                |
| EQT 0006 103-97 - Industrial Warm Flare              | 177                  | 75000                          | 3                  |                                 | 132                | 1500                |

Relationships:

Subject Item Groups:

| ۵        | Group Type                   | Group Description                        |
|----------|------------------------------|--|
| SCN 0001 | Alternate Operating Scenario | 103-97.A - Warm Flare (Startup/Shutdown) |
| UNF 0001 | Unit or Facility Wide        | Facility Wide - Syngas Separation Unit   |
|          |                              |  |

Group Membership:

| Member of Groups |                                |
|------------------|--------------------------------|
|                  | CN000000001                    |
| Description      | 103-97 - Industrial Warm Flare |
| =                | EQT 0006                       |

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

| Fee Number | Air Contaminant Source | Multiplier | Units Of Measure |
|------------|------------------------|------------|------------------|
| 0440       | 0440 Industrial Gases  |            |                  |
|            |                        |            |                  |

SIC Codes:

| 2813 | Industrial gases | Al 31512 |
|------|------------------|----------|
| 2813 | Industrial gases | 5        |

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### INVENTORIES

# Al ID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit Activity Number: PER20060001 Permit Number: 0180-00071-V0 Air - Title V Regular Permit Initial

Subject Item Inventory:

| 2         | Description  | Tank Volume  | Max. Operating Rate | Normal Operating Rate | Contents | Operating Time   |
|-----------|--|--------------|---------------------|-----------------------|----------|------------------|
| Syngas Se | Syngas Separation Unit                                 |              |                     |                       |          |                  |
| EQT 0004  | EQT 0004 101-97 - CO2 Stripper Column Veni             |              | 526 MM ft^3/yr      | 526 MM ft^3/yr        |          | 8760 hr/yr       |
| EQT 0005  | EQT 0005   102-97 - Methane-Wash Cold Box "Cold" Flare |              | 3 MM ft^3/yr        | 3 MM ft^3/yr          |          | 8760 hr/yr       |
| EOT 0006  | EOT 0006 103-97 - Industrial Warm Flare                |              | 1319 MM ft^3/yr     | 1319 MM ft^3/yr       |          | 8760 hr/yr       |
| EQT 0007  | EQT 0007 (104-97 - Cooling Tower (3-cell fiberglass)   |              |                     |                       |          | 8760 hr/yr       |
| EQT 0008  | EQT 0008 105-97 - H2SO4 Storage Tank for Cooling Tower | 1500 gallons |                     |                       |          | 8760 hr/yr       |
| FUG 0001  | FUG 0001 106-97 - Fugilive Air Emissions               |              |                     |                       |          | (None Specified) |

Stack Information:

| ID Description                                       | Velocity<br>(fVsec) | Flow Rate (cubic fl/min-actual) | Diameter<br>(feet) | Discharge Area<br>(square feet) | Height<br>(feet) | Temperature<br>(oF) |
|--|---------------------|---------------------------------|--------------------|---------------------------------|------------------|---------------------|
| Syngas Separation Unit                               |                     |                                 |                    |                                 |                  |                     |
| EQT 0004 101-97 - CO2 Stripper Column Vent           | 85                  | 1000                            | 5.                 |                                 | 106              | 100                 |
| EQT 0005 102-97 - Methane-Wash Cold Box "Cold" Flare | 100                 | 18850                           | 2                  |                                 | 164              | 2000                |
| EQT 0006 103-97 - Industrial Warm Flare              | 177                 | 75000                           | င                  |                                 | 132              | 1500                |

Relationships:

Subject Item Groups:

| <u>0</u> | Group Type                            | Group Description                              |
|----------|---------------------------------------|--|
| SCN 0001 | Alternate Operating Scenario          | 103-97-A SU/SD - Warm Flare (Starlup/Shutdown) |
| SCN 0002 | SCN 0002 Alternate Operating Scenario | 103-97-A Norm - Warm Flare (Normal Operation)  |
| UNF 0001 | UNF 0001 Unit or Facility Wide        | Facility Wide - Syngas Separation Unit         |
|          |                                       |  |

Group Membership:

| Member of Groups | SCN000000001, SCN0000000000    |
|------------------|--------------------------------|
| Description      | 103-97 - Industrial Warm Flare |
| al               | EQT 0006                       |

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

| Fee Number | Air Contaminant Source | Multiplier | Units Of Measure |
|------------|------------------------|------------|------------------|
| 0440       | 0440 Industrial Gases  |            |                  |

SIC Codes:

| Al 31512         | UNF 001          |
|------------------|------------------|
| Industrial gases | Industrial gases |
| 2813             | 2813             |

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## **EMISSION RATES FOR CRITERIA POLLUTANTS**

Ai ID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit Activity Number: PER20060001

Permit Number: 0180-00071-V0 Air - Title V Regular Permit Initial

|                            | 8         |   |           | Ň         | :             |           | PM10           |           |                               | 202       |   |           | 200       |                     |           |
|----------------------------|-----------|---|-----------|-----------|---------------|-----------|----------------|-----------|-------------------------------|-----------|---|-----------|-----------|---------------------|-----------|
| Subject Item               | Avg lb/hr | Avg lb/hr Max lb/hr Tons/Year Avg lb/hr Max lb/hr | Tons/Year | Avg lb/hr | $\overline{}$ | Tons/Year | Avg lb/hr      | Max lb/hr | Avg lb/hr Max lb/hr Tons/Year | Avg lb/hr | Avg lb/hr Max lb/hr Tons/Year Avg lb/hr | Tons/Year | Avg lb/hr | Max lb/hr Tons/Year | Tons/Year |
| Syngas Separation Unit     | Juit      |   |           |           |               |           |                |           |                               |           |   |           |           |                     |           |
| EQT 0004<br>101-97         | 1.40      | 1.40  | 6.13      |           |               |           | - <del>-</del> |           |                               |           |   |           | 1.54      | 2.05                | 6.72      |
| EQT 0005<br>102-97         | 2.37      | 930.47  | 10.38     | 0.18      | 23.49         | 0.78      | 0.003          | 0.003     | 0.01                          | <0.001    | <0.001                                  | <0.01     | 0.05      | 0.78                | 0.23      |
| EQT 0006<br>103-97         |           |   | 34.77     |           |               | 2.80      |                |           | 0.04                          |           |   | <0.01     |           |                     | 0.68      |
| EQT 0007                   |           |   |           |           |               |           | 0.90           | 1.81      | 3.96                          | -         |   |           |           |                     |           |
| FUG 0001<br>106-97         | 11.79     | 11.79   | 51.63     |           |               |           |                |           |                               |           |   |           | 0.04      | 0.04                | 0.16      |
| SCN 0001<br>103-97-A SU/SD | 3.44      | 1794.74   | 15.06     | 0.13      | 36.31         | 0.58      |                |           |                               |           |   |           | 0.003     | 1.65                | 0.01      |
| SCN 0002<br>103-97-A Norm  | 4.60      | 55.07   | 19.71     | 0.34      | 1.93          | 1.50      | 0.01           | 0.01      | 0.04                          | <0.001    | <0.001                                  | <0.01     | 0.15      | 0.15                | 0.67      |

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

### **EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

Al ID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit

Activity Number: PER20060001 Permit Number: 0180-00071-V0 Air - Title V Regular Permit Initial

| Emission Pt.       | Pollutant     | Avg lb/hr | Max lb/hr | Tons/Year |
|--------------------|---------------|-----------|-----------|-----------|
| EQT 0004<br>101-97 | Methanol .    | 1.54      | 2.05      | 6.72      |
| EQT 0008<br>105-97 | Sulfuric acid | <0.001    | <0.001    | <0.01     |

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

### SPECIFIC REQUIREMENTS

Al ID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit Activity Number: PER20060001
Permit Number: 0180-00071-V0
Air - Title V Regular Permit Initial

## EQT 0005 102-97 - Methane-Wash Cold Box "Cold" Flare

| [LAC 33:III.1105]        | Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve   |
|--------------------------|---|
|                          | releases for control over process upsets. Which Months: All Year Statistical Basis: None specified  |
| 2 [LAC 33:III.1105]      | Submit notification: Due to the Office of Environmental Compliance as soon as possible after the start of burning of pressure valve releases for  |
|                          | control over process upsets. Notify by telephone at (225) 763-3908 during office hours; (225) 342-1234 after hours, weekends, and holidays; or    |
|                          | by e-mail utilizing the Incident Report Form and procedures found at www.deq.state.la.us/surveillance. Notification is required only if the upset |
|                          | cannot be controlled in six hours.  |
| 3 [LAC 33:111.1311.C]    | Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60     |
|                          | consecutive minutes (Complies by using sweet natural gas as fuel).  |
|                          | Which Months: All Year Statistical Basis: Six-minute average  |
| 4 [LAC 33:III.501.C.6]   | Flare gas: Heat content > 300 BTU/scf, to ensure destruction of emissions to the flare stack.   |
|                          | Which Months: All Year Statistical Basis: None specified  |
| 5 [LAC 33:III.507.H.1.a] | Presence of a flame recordkeeping by electronic or hard copy continuously.  |
| 6 [LAC 33:III.507.H.1.a] | Flare gas: Heat content recordkeeping by electronic or hard copy annually.  |
| 7 [LAC 33:III.507.H.1.a] | Presence of a flame monitored by heat sensing device continuously.  |
|                          | Which Months: All Year Statistical Basis: None specified  |
| 8 [LAC 33:III.507.H.1.a] | Flare gas: For each flaring event, make available upon request the composition of the flue gas.   |

## EQT 0006 103-97 - Industrial Warm Flare

| days; or<br>ne upset  | e valve   | any 60   |   | cenario   |   |
|---|---|--|---|---|---|
| control over process upsets. Notify by telephone at (225) 763-3908 during office hours; (225) 342-1234 after hours, weekends, and holidays; or by e-mail utilizing the Incident Report Form and procedures found at www.deq.state.la.us/surveillance. Notification is required only if the upset cannot be controlled in six hours. | Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.  Which Months: All Year Statistical Basis: None specified | Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive.minutes (Complies by using sweet natural gas as fuel).  Which Months: All Year Statistical Basis: Six-minute average | Flare gas: Heat content > 200 BTU/scf, to ensure destruction of emissions to the flare stack.  Which Months: All Year Statistical Basis: None specified | Alternate Operating Scenario: Operating plan recordkeeping by logbook upon each occurrence of making a change from one operating scenario to another. Record the operating scenario under which the Warm Flare is currently operating. Include in this record the equipment/source identification number and the date of change. Keep a copy of the log on site for at least two years. | Presence of a flame monitored by heat sensing device continuously. Which Months: All Year Statistical Basis: None specified |
|   | 10 [LAC 33:III.1105]  | 11 [LAC33:III.1311.C]  | 12 [LAC 33:III.501.C.6]   | 13 [LAC 33:III.507.G.5]   | 14 [LAC 33:III.507.H.1.a]   |

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## SPECIFIC REQUIREMENTS

AIID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit Activity Number: PER20060001

Permit Number: 0180-00071-V0 Air - Title V Regular Permit Initial

## EQT 0006 103-97 - Industrial Warm Flare

## UNF 0001 Facility Wide - Syngas Separation Unit

| 0   | previously reported deviations, in heu of attaching the individual deviation reports, clearly reference the communication(s)/conrespondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)] Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by a responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated | report. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. [40 CFR 70.6(a)(3)(ii)(B)]  CFR 70.6(a)(3)(ii)(B)] | Submit 1 ritle V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, surveillance.  Division. [40 CFR 70.6(c)(5)(iv)] | Comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B. | Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited. | Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. | Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. | Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. |
|---|--|--|---|--|---|---|--|--|
| 18 [40 CFR 70.5.a.1.(iii)]<br>19 [40 CFR 70.6.a.3.(iii)(A)] | 20 [40 CFR 70.6.a.3.(iii)(B)]  |  | 21 [40 CFR 70.6.c.5.(iv)]   | 22 [40 CFR 82.Subpart F]   | 23 [LAC 33:III.1103]  | 24 [LAC 33:III.1303.B]  | 25 [LAC 33:III.2113.A]   | 26 [LAC 33:111.219]  |

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## SPECIFIC REQUIREMENTS

Al ID: 31512 - Air Products & Chemicals Inc - Syngas Separation Unit
Activity Number: PER20060001
Permit Number: 0180-00071-V0
Air - Title V Regular Permit Initial

## UNF 0001 Facility Wide - Syngas Separation Unit

| Maintain, to the extent practicable, a leak-free facility taking such steps as are necessary and reasonable to prevent leaks and to expeditiously repair leaks that occur. Update the written plan presently required by LAC 33:III.2113.A.4 within 30 days of receipt of this permit to incorporate these general cuty obligations into the housekeeping procedures. The plan shall then be considered a means of emission control subject to the required use and maintenance provisions of LAC 33:III.905. Failure to develop, use, and diligently maintain the plan shall be a violation of this permit. (State Only). | Maintain best practical housekeeping and maintenance practices at the highest possible standards to control emissions of highly reactive volatile organic compounds (HRVOC), which include 1,3-Butadiene, Butene, cis-2-Butene, trans-2-Butene, Ethylene, Propylene, Toluene, Xylene, m/p-Xylene, o-Xylene. (State Only). | Submit standby plan for the reduction or elimination of emissions during an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency: Due within 30 days after requested by the administrative authority. | During an Air Pollution Alert, Air Pollution Warning or Air Pollution Emergency, make the standby plan available on the premises to any person authorized by the department to enforce these regulations. | Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901. | Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur. | Submit registration: Due January 31, 1998, or within 60 days after the source becomes subject to LAC 33:III.Chapter 59, whichever is later. Include the information listed in LAC 33:III.5911.B, and submit to the Office of Environmental Compliance. | Submit amended registration: Due to the Office of Environmental Compliance within 60 days after the information in the submitted registration is no longer accurate. | Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D. |
|--|---|---|---|--|---|--|--|---|
| 27 [LAC 33:III.501.C.6]  | 28 [LAC 33:III.501.C.6]   | 29 [LAC 33:111.5611.A]  | 30 [LAC 33:III.5611.B]  | 31 [LAC 33:III.5901.A]   | 32 [LAC 33:III.5907]  | 33 [LAC 33:III.5911.A]   | 34 [LAC 33:111.5911.C]   | 35 [LAC 33:111.919.D]   |

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